

Connectors and Cables

This appendix describes the cables, connectors, and adapters that can connect to 2900 XL switch ports.

Note The *Catalyst 2900 Series XL Modules Installation Guide* and the *Catalyst 2900 Series XL ATM Modules Installation Guide* describe expansion module cables and connectors.

10/100 Ports

The 10/100 ports use standard RJ-45 connectors and Ethernet pinouts with internal crossovers, as indicated by an X in the port name. These ports have their transmit (TD) and receive (RD) signals internally crossed, so that a straight-through cable and adapter can be attached to the port. Figure B-1 shows the pinout on the port connector.

When connecting the 10/100 ports to compatible servers and workstations, you must use a straight-through 10BaseT and 100BaseTX cable (Figure B-3 illustrates straight-through cable schematics). When connecting to other switches or repeaters, you must use a crossover cable (Figure B-4 illustrates crossover cable schematics).

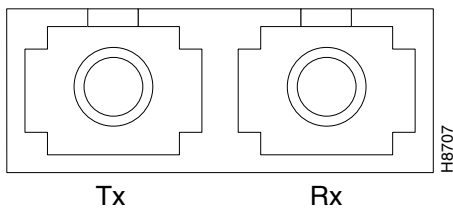
Note Use a straight-through cable to connect two ports when one of the ports is designated with an X. Use a crossover cable to connect two ports when both ports are designated with an X.

Figure B-1 10/100 Pinout

100BaseFX Ports

100BaseFX ports use duplex SC connectors, as shown in Figure B-2. These ports use 10/125- or 62.5/125-micron multimode fiber-optic cabling.

Figure B-2 100BaseFX SC Connector



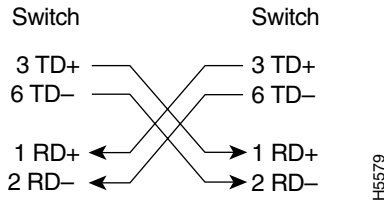
Straight-Through and Crossover Cable Pinouts

The schematics of crossover and straight-through cables are shown in Figure B-3 and Figure B-4.

Figure B-3 Straight-Through Cable Schematic



Figure B-4 Crossover Cable Schematic



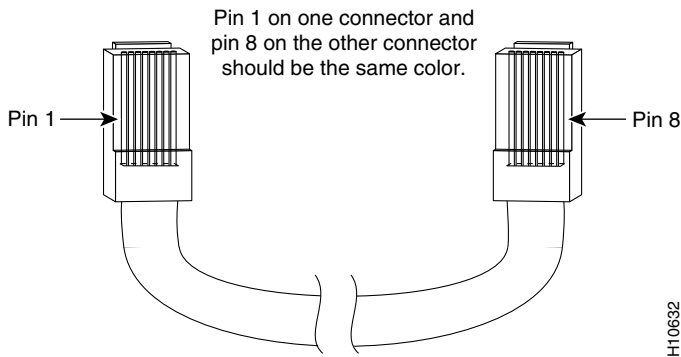
Console Port

The console port uses an 8-pin RJ-45 connector, as shown in Figure B-6 and described in Table B-1. The supplied RJ-45-to-RJ-45 rollover cable and adapters connect the console port of the switch to a console PC or terminal. The following sections describe the rollover cable and adapters for the console port.

Identifying a Rollover Cable

You can identify a rollover cable by comparing the two modular ends of the cable. Hold the cable ends side-by-side, with the tab at the back. The wire connected to the pin on the outside of the left plug should be the same color as the wire connected to the pin on the outside of the right plug (see Figure B-5).

Figure B-5 Identifying a Rollover Cable



Connecting to a PC

Use the thin, flat, RJ-45-to-RJ-45 rollover cable and RJ-45-to-DB-9 female DTE adapter (both provided) to connect the console port to a PC running terminal-emulation software. Figure B-6 shows how to connect the console port to a PC. Table B-1 lists the pinouts for the console port, the RJ-45-to-RJ-45 rollover cable, and the RJ-45-to-DB-9 female DTE adapter.

Figure B-6 Connecting the Console Port to a PC

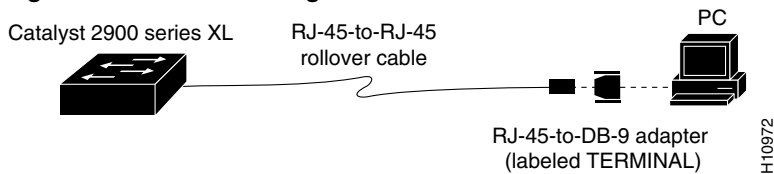


Table B-1 Console Port Signaling and Cabling Using a DB-9 Adapter

Console Port (DTE)	RJ-45-to-RJ-45 Rollover Cable		RJ-45-to-DB-9 Terminal Adapter	Console Device
Signal	RJ-45 Pin	RJ-45 Pin	DB-9 Pin	Signal
RTS	1	8	8	CTS
Not connected	2	7	6	DSR
TxD	3	6	2	RxD
GND	4	5	5	GND
GND	5	4	5	GND
RxD	6	3	3	TxD
Not connected	7	2	4	DTR
CTS	8	1	7	RTS

Connecting to a Terminal

Use the thin, flat, RJ-45-to-RJ-45 rollover cable and RJ-45-to-DB-25 female DTE adapter to connect the console port to a terminal. Figure B-7 shows how to connect the console port to a terminal. Table B-2 lists the pinouts for the console port, the RJ-45-to-RJ-45 rollover cable, and the RJ-45-to-DB-25 female DTE adapter.

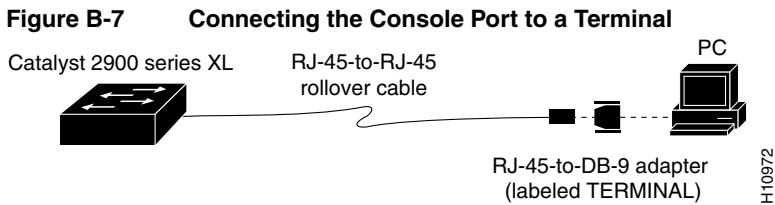


Table B-2 Console Port Signaling and Cabling Using a DB-25 Adapter

Console Port (DTE)	RJ-45-to-RJ-45 Rollover Cable		RJ-45-to-DB-25 Terminal Adapter	Console Device
Signal	RJ-45 Pin	RJ-45 Pin	DB-25 Pin	Signal
RTS	1	8	5	CTS
Not connected	2	7	6	DSR
TxD	3	6	3	RxD
GND	4	5	7	GND
GND	5	4	7	GND
RxD	6	3	2	TxD
Not connected	7	2	20	DTR
CTS	8	1	4	RTS